innovations

Showcasing the latest technologies and products in the companies' own words

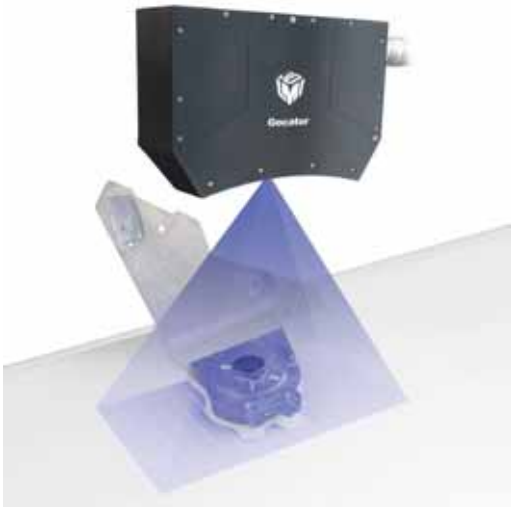
Compact structured light sensor

LMI Technologies says its Gocator 3210 stereo snapshot sensor is suitable for 3D inspection, quality control applications.

Features include two two-megapixel cameras for high-resolution 3D snapshot scans, a large FOV (120mm x 85mm) for picking up multiple features at once, and onboard hardware acceleration to achieve 4Hz for full size scans.

The company says this unit utilises an ultra-bright projector that allows the sensor to pick up dark objects or objects with steep edges. It also provides uniform illumination across the entire field of view for acquiring data in the centre of the scan target with the same precision as at the edge. Furthermore, the 3210 benefits from data processing acceleration with the Gocator Accelerator application that offloads a portion of the image processing to a PC.

✳ **www.lmi3d.com**



Fast curing composite matrix resin

To meet the requirements for automated, short production cycles of composite components, Henkel has developed Loctite Max 2 composite matrix resin for RTM processes.

The company claims this two-part polyurethane-based product is fast-curing and because of its low viscosity, rapidly fills the mould quickly, resulting in short injection times. A post-cure can also be performed to ensure a full cure in around one hour at 150°C.

This polyurethane matrix resin has enabled automotive specialist Benteler-SGL, to develop a glass-fibre-reinforced leaf spring with a projected production output of over 100,000 parts per year (pictured)

✳ **www.loctite.co.uk**

Optical measuring machine for quality assurance

GOM is expanding its ATOS series with a new sensor for full-field digitising and inspection of contoured part geometries.

The company says a fringe projection system is used for production quality assurance of small to medium-sized parts. The ATOS Capsule can be used, for example, for first article inspection of gears, turbine blades and wheels etc.

Offered in two versions, the system combines technologies, such as Blue Light Technology and the triple scan principle, with a unibody housing design that offers protection against contamination and the rigidity required for process stability.

✳ **www.gom.com**

Press hardenable steels for automotive use

ArcelorMittal claims the properties of its two new press hardenable steels – Usibor 2000 and Ductibor 1000 – complement each other, and when the two steels are combined into a single laser-welded blank, offer several advantages including weight savings, improved crash behaviour and cost savings through material and manufacturing optimisation.

The company says Usibor 2000 is more than 30% stronger than its predecessor (Usibor 1500), and could typically bring 10-15% weight savings when compared to existing hot-stamping solutions. It can be used for monolithic parts and is suitable for applications where deformation must be avoided.

Ductibor 1000 is suitable for monolithic parts which require higher ductility and is already available for qualification in Europe and North America. Usibor 2000 samples are available in Europe now and will be available in North America in early 2017.

✳ **www.arcelormittal.com**

Programmable linear Hall-effect sensor

The A1377 programmable linear Hall-effect sensor IC is ideal for applications requiring high accuracy and resolution without compromising bandwidth, says Allegro MicroSystems.

The company says this new device uses segmented, linearly interpolated temperature compensation technology, which it is claimed reduces the total error of the device across the whole temperature range. It is suited to linear and rotary positions in automotive applications such as actuators and valves.

The A1377 is available in a through-hole, small form factor, single in-line package (SIP) and has a range of sensitivities and offset operating bandwidths. The company states the device's sensitivity is adjustable within the range of 1 to 14mV/G.

✳ **www.allegromicro.com**